

CALIFORNIA BIODIVERSITY NEWS

California Biodiversity Council

Spring/Summer 2005 Vol. 12 No. 1



**By
Mike
Chrisman**
Co-Chair,
California
Biodiversity
Council

FROM THE CHAIR

The upcoming July meeting of the Biodiversity Council will focus on the protection and management of California's ocean and coastal resources. When we think about the challenges of protecting and managing our ocean and coastal environments, we sometimes limit our thinking to the sciences that address the physical, chemical, and biological components of a healthy ecosystem. There is little question that these are critical factors for consideration and evaluation of ecosystem health and sustainability. However, the recent findings of both the U.S. Commission on Ocean Policy and the Pew Oceans Commission have made it clear that we must also understand how human-driven ocean and coastal economics affect ecosystem health and sustainability.

The California Biodiversity Council will host the first California Ocean Eco-

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Socioeconomic Information and our Nation's Oceans, Coasts and Great Lakes

*Admiral James D. Watkins USN (Ret.)
Chairman, U.S. Commission On Ocean Policy*

The ocean has always made important contributions to the U.S. economy, and that importance continues to grow. Based on a study done at the request of the Commission, Professor Charlie Colgan, the Chief Economist of the National Ocean Economic Project (NEOP), calculated that the ocean economy contributed more than \$120 billion to the U.S. economy in 2000. The level of overall economic activity within coastal areas is even higher (Figure

1.2). More than \$1 trillion, or one-tenth of the nation's annual gross domestic

¹ *An Ocean Blueprint for the 21st Century, Appendix C*

product (GDP), is generated within nearshore areas, the relatively narrow strip of land immediately adjacent to the coast. If the contribution of all coastal watershed counties is combined, the total swells to over \$4.5 trillion, half of the nation's GDP.¹ The re-

sult has been a rapidly expanding coastal economy accompanied by increasing stress on marine-related resources and services.

These numbers cannot be ignored, yet, despite their obvious importance, the federal govern-

ment has no program in place to collect or analyze the contributions of our oceans and coasts to the U.S.

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*Admiral Watkins,
U.S. Commission on Ocean Policy*

The U.S. Commission on Ocean Policy was a congressionally-mandated, presidentially-appointed independent commission charged with making recommendations to Congress and the President for a coordinated and comprehensive national ocean policy. The Commission began its working in 2001 and submitted its final report, "An Ocean Blueprint for the 21st Century," in September 2004. Commission-related documents and information can be found at <http://www.oceancommission.gov>.

From the Chair

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nomic Summit sponsored by the state of California. I'm convinced that we must improve our understanding and appreciation of the economic contribution of our ocean and coastal resources as it goes hand in hand with preserving biodiversity. We must evaluate ways to use economic tools, such as market processes, to help guide our efforts to protect, manage, and restore these resources. The Governor's action plan calls for the completion of an economic analysis for California prepared by the National Ocean Economic Project titled California's Ocean Economy. Action 3 of that plan calls for this Summit to be convened. This is just one action, of many, that we are taking to help address these issues.

Some of the questions we face include: What do we know about the contribution of California's ocean and coast to the state's economy? What additional research or areas of investigation are necessary to help us use economic tools to address key management concerns? What do government agencies, academia, philanthropic interests, non-governmental organizations, and others think about key economic questions regarding the ocean and coast? Can economic evaluation and new market based approaches help us create new restoration opportunities, attract more money from the federal government or philanthropic interests, and contribute to our efforts to enhance biodiversity? The California Ocean Summit is intended as a first step toward answering these questions and formulating solutions.

In July we will hear from the National Ocean Economics Project that California has the largest Ocean Economy in the United States, ranking number one overall for both employment and gross state product. In 2000, the total Gross State Product of California's Ocean Economy was approximately \$42.9 billion and California's Ocean Economy provided nearly 700,000 jobs.

We have assembled a group of national experts at this summit to provide their opinions on a wide range of economic topics and their views on the findings of the National Ocean Economics Project. They will come prepared to provide recommendations to help California move forward.

California's comments to the U.S. Commission on Ocean Policy provided clear support for this nation to create sustained, consistent, and comprehensive data collection and analyses of U.S. ocean and coastal economies. The recently completed economic analysis for California provides a good starting point for this state to participate and help support such a system. Admiral James D. Watkins, the chair of the U.S. Commission, has provided an excellent article on the need for such an economic evaluation system that is included in this newsletter.

Governor Schwarzenegger has taken decisive action on ocean and coastal protection by producing a 13 point ocean action plan and by signing seven new bills into law, including one to create the California Ocean Protection Council. The Ocean Protection Council has taken steps to influence federal

policy to oppose efforts to weaken the national moratorium on oil and gas drilling in the Outer Continental Shelf, to safeguard state authority over the siting of Liquefied Natural Gas receiving terminals, and to oppose any efforts to weaken the Coastal Zone Management Act. It is our intention that this summit will help inform the California Ocean Protection Council on key economic questions as we move forward with new and innovative actions to protect and manage our ocean and coastal resources. California's leadership is being viewed nationally and I believe the implications of this summit will reach far beyond California's borders. ☞

The California Ocean and Coastal Economic Summit

July 21 & 22, 2005

Cesar Chavez Community Center
401 Golden Ave.
Long Beach, CA

Plus, don't miss the **Port of Long Beach Harbor Cruise and Aquarium of the Pacific Dinner and Tour** on the afternoon/evening of the 21st!

For more information about the upcoming California Ocean and Coastal Economic Summit, including detailed agendas and registration materials, please go to:

<http://ceres.ca.gov/biodiv/oceans.html>

Diving into Ocean Protection

by Sam Schuchat, Executive Officer, State Coastal Conservancy; Council Secretary

Last year, Governor Arnold Schwarzenegger signed the California Ocean Protection Act (COPA) into law. COPA established the California Ocean Protection Council, making California the first state in the U.S. to create a cabinet-level organization dedicated to the protection and management of ocean and coastal resources. The council consists of Secretary for Resources Mike Chrisman (Chair), the State Lands Commission Chair Lt. Governor Cruz Bustamante, Secretary for Environmental Protection Alan Lloyd, and two ex officio members, Senator Sheila Kuehl and Assemblymember Pedro Nava.

At its first meeting in March 2005, U.S. Commission on Ocean Policy Chair Admiral James Watkins and Pew Oceans Commissions Chair Leon Panetta applauded California for leading the nation in the implementation of many of the commissions' recommendations. The council was briefed on the implementation of the Governor's ocean action plan, *Protecting our Ocean: California's Action Strategy*. The council took action at this meeting by issuing a strong response to Congress regarding the pending national energy bill. In their April 4, 2005 letter, the council opposed efforts to: (i) lift the moratorium on offshore oil and gas leasing; (ii) reduce the protections of the Coastal Zone Management Act; and (iii) reduce or eliminate states authority over the siting of liquefied natural gas terminals.



Remotely Operated Vehicle (ROV)
Photo: Marine Applied Research and Exploration (MARE)

As Council Secretary, I presented the various potential funding sources to the council. The council was allocated \$1.2 million in 2005-06 fiscal year appropriations and \$10 million in tideland oil royalties. However, the status of the latter funds remains uncertain until the state budget is finalized later this summer. The council does have funds immediately available to support ocean and coastal protection projects thanks to a partnership with the State Coastal Conservancy. The State Coastal Conservancy Board has agreed to fund projects approved by the council with \$5 million of the Conservancy's Proposition 40 and 50 bond funds. In addition, the State Water Resources Control Board has agreed to designate \$10 million of Proposition 50 funds for ocean protection projects, specifically

for the state's 34 Areas of Special Biological Significance.

At their second meeting on June 10, 2005 in San Francisco, the council adopted interim guidelines for funding, project selection, and application procedures. The council approved four new projects that will further the objectives of the California Ocean Protection Act. These projects will provide funding for:

- An underwater remotely operated vehicle to improve resource management and protection in the Channel Islands marine protected areas
- A pilot project for the restoration of critical eelgrass and native oyster habitat in the San Francisco Bay

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The California Forest Futures Conference

California Forest Futures 2005, held this past May in Sacramento and presented by the University of California Berkeley Center for Forestry and the Pacific Forest Trust, focused first on the problems of forest loss, primarily due to conversion to other uses such as housing and vineyards, and then addressed strategic solutions to stop loss.

The conference was the first of its kind in California and ideally will encourage those who attended to hold similar discussions within their respective communities in an effort to help increase awareness about the real problem of forest loss and the resulting loss of ecosystem services. As this brief summary will not be able to provide an overview of each of the diverse panels and presenters at the conference, we encourage you to visit the following website to review the speaker presentations and abstracts: <http://nature.berkeley.edu/forestry/forestfuture> ↩



Mark your calendars!

CBC upcoming meetings:

Dec. 1, 2005

**Statewide Meeting
Sacramento, CA**

April 5-6, 2006

**Central Valley Regional Meeting
Location TBD**

Diving into Ocean Protection

(continued from page 3)

- A sediment study of Klamath River dams to develop management recommendations for restoring native salmonid habitat
- A pilot project to find and remove derelict fishing gear in state waters

A draft of the *California Ocean and Coastal Information, Research, and Outreach Strategy* called for in the Governor's ocean action plan was presented to the council at their June 10 meeting. The goal of the strategy is to encourage and support information, research, monitoring, and outreach programs that are of clear benefit to the people of the state of California and that address key ocean and coastal resource management, policy, science, and engineering issues that face the

state. Council staff is soliciting scientific advice and public comment on this draft strategy. The final strategy will be presented to council members at their September 23, 2005 meeting for adoption.

The council is delighted at the opportunity to partner with the California Biodiversity Council and the Southern California Wetland Recovery Program (SCWRP) at their joint meeting in July and is looking forward to hearing the Biodiversity Council's recommendations on ocean and coastal economics. We have a long road ahead to fulfill the potential of the California Ocean Protection Act, and we will rely on the partners like the Biodiversity Council and the SCWRP to help protect California's magnificent ocean and coast. ↩

Coastal Connections

Reprinted with permission from Coastal Connections, a publication of the National Oceanic and Atmospheric Administration Coastal Services Center

Coastal and Ocean Economics

How valuable is the fishing industry to a local economy? How much is a visit to the beach worth? How does conserving an estuary affect the economy? For the last several years, coastal managers and economists have been working to determine the "value" of ocean and coastal resources such as these.

A new national initiative, called the National Ocean Economics Program, or NOEP, is trying to answer these questions and others so that coastal managers have a better understanding of the value of an area's resources and how important they are to local and national economies.

Market Values

Sponsored by the National Oceanic and Atmospheric Administration, California State University at Monterey Bay, and the Environmental Protection Agency, NOEP began primarily focusing on the market value of coastal and ocean resources—that is, the resources and activities with quantifiable dollar values and roles in the economy.

Charles Colgan, chief economist for the program, has extensively researched the changing market value of coastal and ocean resources. Some of his most significant results include the following:

- Not everyone is moving to the coast as we have been reporting. Rather, the coastal population has been growing at a slightly lower rate compared with inland areas. The difference, however, is that coastal population growth occurs in a much more limited land area, which is what causes problems for housing, cost of living, land use, and other issues.
- The coastal and ocean economy has changed dramatically in the last decade. Traditional ocean industries, such as offshore oil and gas development, shipbuilding, and fishing, are being replaced by the recreation and tourism business. "The coast is becoming the tourism and recreation sector—period," states Judith Kildow, principal investigator for NOEP.
- As business has boomed on the coast, so has employment—but housing hasn't followed. Instead, more and more people are commuting from inland

areas. What coastal managers especially need to monitor, says Kildow, is the expansion of this inland population and how they can manage commuters' transportation needs, other infrastructure issues, and the impacts on the environment in these expansion areas.

Nonmarket Values

The second phase of NOEP focuses on the nonmarket value of coastal resources, or those resources that are not traded in the market but still have value to businesses, residents, and visitors. The process of evaluating nonmarket worth, however, is "much more complicated since there are so many ways to estimate it," notes Linwood Pendleton, NOEP's nonmarket research specialist.

Pendleton and the NOEP team are working on this section of the program in two major steps:

- 1) Develop a portal to literature on nonmarket valuation. This portal is now available on the NOEP Web site (www.oceaneconomics.org).
- 2) Expand this portal into an information system that would act as a "super database" with built-in user guidance that helps organizer nonmarket values.

The goal of this information center is not only to help managers understand

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Socioeconomic Information

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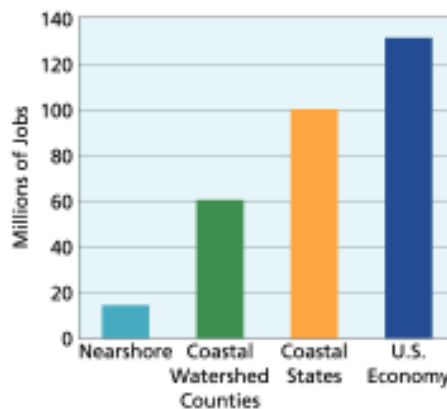
economy. Cost-benefit analyses to support ocean and coastal decisions require enhanced economic data. However, the major federal economic statistical agencies have neither the mandate nor the means to study the ocean and coastal economies. Furthermore, the data developed on an agency-by-agency basis are often mutually incompatible and hard to access.

The lack of sustained, consistent, and comprehensive data collection and analyses on the ocean and coastal economies is significantly hampering efforts to develop solutions to conflicts among competing users groups. Some existing and emerging ocean and coastal issues that require better social and economic information include:

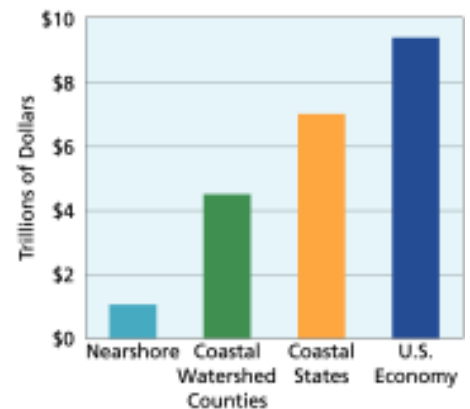
- Multiple-use controversies in the coastal zone.
- Novel offshore uses, such as the proposed introduction of wind farms.
- Consensus-based decision making involving stakeholders, watershed councils, public-private partnerships, and numerous nongovernmental organizations.
- Global climate change and its potential effects on a range of issues including agriculture, water supply, and coastal development.
- Changes in coastal communities due to shifts in fishery policy, growth of the tourism industry, and

Figure 1.2 The Value of the Coasts

Jobs Generated by Geographic Area



Gross Domestic Product by Geographic Area



Coastal watershed counties, which account for less than a quarter of U.S. land area, are significant contributors to the U.S. economy. In 2000, they were home to nearly half of the nation's jobs and generated a similar proportion of the nation's gross domestic product.

Source: Living Near... and Making a Living from... the Nation's Coasts and Oceans, Appendix C.

redevelopment of ports and waterfronts.

- Changes in coastal demographics.
- Varying perceptions of coastal environmental values.

Fortunately, continuing NEOP research is laying the groundwork for a broader program. However, while this effort is generating valuable information, including much of the economic data used in the Commission's report, it remains a research project. To be useful in understanding coastal and ocean economies and assessing the impacts of management policies on individual, businesses and communities, a long-term, operational program is needed. Such a program will require close coordination between the federal government and other entities, particularly states. Hopefully the California socioeconomic study will

inspire other coastal states to take similar action, building on the framework being developed by the NEOP.

In its report, the Commission recommended that a national program for social science and economic research be implemented, as part of a broad national research strategy, to examine the human dimensions and economic value of the nation's oceans and coasts. This effort should include:

- Creation of a federal interagency steering group to coordinate ocean-related socioeconomic research and establishment of an operational research and an assessment program within the National Oceanic and Atmospheric Administration to utilize this information.

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CBC Helps Great Valley Center with 2005 Environmental Indicators Report

by Mike Chapel,
USDA Forest Service

The mission of the Great Valley Center is to promote the economic, environmental, and social well-being of the Central Valley of California. Former Biodiversity Council Member Carol Whiteside is the President of this organization. The Center has issued a series of reports on the economy, environment, community well-being, public health, and education/youth since 1999. Their objective is to provide broad understanding of all topics for the citizens of the Valley. The GVC uses sets of "indicators" to portray the overall condition for the topics in their reports. Useful indicators are those that represent a fundamental component of well-being, can be tracked or measured, and are easy to understand by the public.

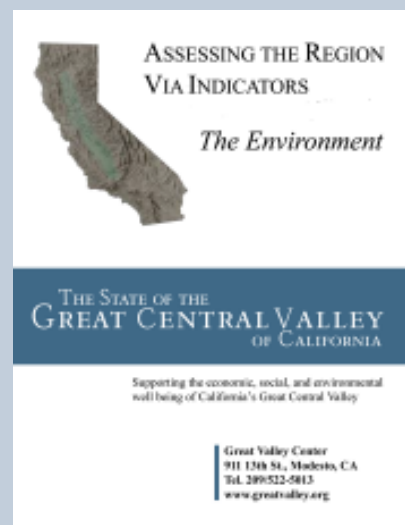
The Center's 2000 report on environmental indicators is being updated this year. This time, the Council's staff is working with them on the update. Our goals are to 1) help make this another useful report for the Center; and 2) provide a document that can be shared and discussed between the Great Valley Center and the Biodiversity Council.

On February 22, staffs from both organizations met in Sacramento. At this meeting, recommendations were made to the Center regarding potential indicators for air,

water, species and habitats, and other resources. In addition, staff contacts were identified in participating CBC agencies to help with most of the environmental indicators.

The objective is to match staff from the Great Valley Center with those from CBC member agencies so that the best available agency information can be utilized in the report. Staff from the Center are writing the report. The staffs continue to work together to organize and evaluate information and review the draft report.

The Executive Committee recently decided to hold a Council meeting in the Central Valley in April 2006. They are hopeful that the Great Valley Center's Environmental Indicators Report can be a cornerstone for discussions at this meeting. ☞



Socioeconomic Information

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- Establishment of partnerships to take maximum advantage of the expertise resident within state and federal government agencies, academic institutions, and the private sector.
- Periodic reports on such topics as coastal demographics, geographic patterns and trends of ocean and coastal use, economic contributions, attitudes and perceptions, functioning of

governance arrangements, and public-private partnerships.

- Increased interactions with regional, state, and local stakeholders through regional ocean councils and regional ocean information programs so their information needs can be met and socioeconomic changes at these levels can be documented and analyzed.

These efforts deserve, and will require modest, new funding. While

this may prove challenging in a time of scarce budgetary resources, major federal funding is already devoted to economic research in the agricultural sector, although the ocean economy is two and a half times larger than agriculture in terms of total production of goods and services. It is time our oceans and coasts had a similar program so we can make more informed decisions regarding the use and protection of the resources and services they provide. ☞

Coastal Connections

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the nonmarket values of coastal resources, but also, as Pendleton explains, "to give these data dollar values so we can compare market and nonmarket values and link them to see their relationships." The group is also collecting data on living resources, such as what species of fish are caught every year and where, and what changes are occurring with these species over time.

The State Level

While the program aims at getting a good look at the overall U.S. coastal and ocean economy, it's also interested in the regional and local values of these resources. The California Resources Agency recently worked with NOEP to produce an in-depth report on the economic value of the state's coastal and ocean resources.

The agency had undertaken a similar, but much more limited, study in 1994 and wanted to see how the initial findings had changed in the last decade. "To this day, people still quote our numbers from 1992 in articles and reports," explains Brian Baird, a program manager for the agency. "We wanted a better picture of the most recent information."

In addition, the state is overhauling its coastal management policies in its new Ocean Action Plan, which focuses on many of the basic principles noted in the recent report of the U.S.

Commission on Ocean Policy. The findings of the commission's coastal economics report can help the state better understand how management decisions affect state and local economics. "We think this is important stuff," notes Baird, "and it's very exciting, particularly with a new governor who's also excited about it."

Both Baird and the NOEP team hope that other states can use the methodology applied in the California report to get a sense of their ocean and coastal economies, as well as that of the nation as a whole. "It's important that we all understand the human impact on the environment and how it changes over time," explains Kildow.

Summaries of the ocean and coastal economy for each state will soon be available on the NOEP Web site.

Coastal Connections is produced for the coastal resource management community. Each issue of this free bimonthly newsletter focuses on a tool, information resource, or methodology of interest to the nation's coastal resource managers.

To subscribe or contribute to the newsletter, contact the editors at:

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(843)740-1200
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www.csc.noaa.gov/newsletter/*

Resources and References

The following reports, Web sites, and references can help you better understand what is happening in ocean and coastal economics, both nationally and locally.

National Ocean Economics Program Web Site:

This site provides reports, data, terminology, and other information on the state of ocean economics in the U.S. See page 3 for more information about this site.

www.oceaneconomics.org

NOAA's Marine Economics Web Site:

NOAA's Coastal and Ocean Resource Economics (CORE) program provides the content of this site, including background on the program and links to current research, reports, and publications on coastal economics.

www.marineeconomics.noaa.gov

EcoValue:

This Web site compiles economic valuation information for ecosystem resources into a geographic information system (GIS), focusing primarily on resources in Maryland. Includes interactive maps, graphs, statistics, and descriptions of the research methodologies used.

<http://ecovalue.uvm.edu/evp/>

A Dictionary of Environmental Economics, Science, and Policy:

This basic reference book provides definitions of terms from the economics, environmental science, and policy fields. Written by R.Q. Grafton, L.H. Pendleton, and H.W. Nelson, and published by Edward Elgar Publishers, London, in 2001.

CBC Fuels Management Pilot Project Upper Santa Ana River Watershed

by Mike Chapel, USDA Forest Service
and Bill Stewart, FRAP, CDF

At its Lake Arrowhead meeting in June 2004, the CBC established an interagency team to improve the efficiency of planning and review of fuels management projects in a pilot area in the Upper Santa Ana River watershed. Participating agencies included San Bernardino County, California Association of Resource Conservation Districts, California Department of Forestry and Fire Protection, California Department of Fish and Game, Santa Ana Regional Water Quality Control Board, California Department of Parks and Recreation (State Historic Preservation Officer), South Coast Air Pollution Control District, USDI Fish and Wildlife Service, USDI Bureau of Land Management, USDA Natural Resource Conservation Service, and USDA Forest Service. The goals for this project were to identify impediments to timely and effective fuels reduction work and find ways to improve the efficiency of the current planning, review, and approval processes. The team met three times to pursue these goals.

Key findings

The interagency team identified the following important lessons learned from this pilot project.

1. There was limited opportunity to improve on the efficiency of ongoing review and regulatory practices.

The team evaluated existing review and consultation practices by regulatory agencies and found that the agencies were developing efficient ways to effectively protect the environment while moving forward aggressively with fuels reduction work on public and private land. These methods streamline the existing review and regulatory processes by: 1) avoiding sensitive areas where possible; 2) providing boiler-plate mitigations for routine work where impacts are unavoidable; and 3) undergoing interagency consultation for atypical situations.

2. There was a tendency for planning agencies to experience a "culture of enhanced documentation" during project planning.

That is, agencies were increasingly adding survey requirements, additional analyses, and report text which likely exceeded that necessary for sound conservation planning. Participating regulatory agencies indicated that some of the documentation exceeds their expectations, adds to their workload, and may not increase the quality of insights into short and long term impacts of the projects. All

participants agree that better up-front interagency coordination before project planning begins could greatly improve efficiency and effectiveness for all resource programs.

3. With current staffing, some agencies used streamlined regulatory processes to address impacts to public trust resources.

Regulatory agencies relied on their traditional, albeit streamlined, processes for protecting air, water, species and cultural resources. The team found that this was less desirable than fully integrating planning among the agencies. However, prevailing staff levels and workloads prevented participating agencies from dedicating staff for full program integration.

4. All participating agencies agreed that high quality environmental protection and efficient land-use planning could be best accomplished with cooperative, up-front interagency planning.

This work might include the use of shared GIS systems and integrated "fired" planning. Such planning would merge the desired future conditions for air, water, plants, animals, cultural resources, and fire protection and public safety. The agencies currently do not have the resources to attempt this work. ↪

Eyes & Ears

Reading

Bureaucratic Landscapes: Interagency Cooperation and the Preservation of Biodiversity (2003). Author Craig Thomas provides a detailed history of the California Biodiversity Council, from the roots of the MOU on Biodiversity in the 1980s to various efforts to develop bioregional councils in the Klamath and San Joaquin Valley bioregions in the early 1990s and the subsequent successes of NCCP. Available for \$27.95 from MIT Press at <http://www.mitpress.mit.edu>.

California Coastal Access Guide. The California Coastal Commission offers a revised and expanded sixth edition of the California Coastal Access Guide, an essential handbook for both new and seasoned visitors exploring California's majestic 1100-mile shoreline. Available from UC Press, \$22.95, at <http://www.coastal.ca.gov/access/accessguide.html>

The Best of Edward Abbey. In its second edition, this book remains the only major collection of his work chosen by Abbey himself, a rich feast of fiction and prose by the singular American writer whom Larry McMurtry called "the Thoreau of the American West" and whom Alice Hoffman hailed as "the voice of all that is ornery and honorable." Available from UC Press, \$16.95, at <http://www.ucpress.edu>

Invasive Plants of California's Wildlands. Editors Carla C. Bossard, John M. Randall, and Marc C. Hoshovsky provide specific information about the biology and control of the 78 nonnative plant species that are listed by the California Exotic Pest Plant Council (CalEPPC) as being of greatest ecological concern in California. Available from UC Press, \$29.95, at <http://www.ucpress.edu>

Experimental Approaches to Conservation Biology. Editors Malcolm S. Gordon and Soraya M. Bartol address the urgent need to understand and find solutions to the looming worldwide extinction crisis. Written by an international team of contributors who are among the best-known and most active experimental biologists working in the field of conservation biology today, it provides a unique approach by focusing on individual species rather than whole plant and animal communities. Available from UC Press, \$75.00, at <http://www.ucpress.edu>

Agrarian Dreams: The Paradox of Organic Farming in California. In this first comprehensive study of organic farming in California, Julie Guthman casts doubt on the current wisdom about organic food and agriculture. Available from UC Press, \$21.95, at <http://www.ucpress.edu>

Farming with the Wild: A New Vision for Conservation-Based Agriculture (2003). Authors Dan Imhoff and Roberto Carra offer vivid profiles of more than thirty innovative farms, ranches, and organizations in the U.S., together with more than one hundred revealing full-color photographs. Available for \$29.95 from UC Press at <http://www.ucpress.edu/books/sc/pages/SC50928.html>.

Computer Resources

The California Natural History Guides are the definitive resource for exploring the state's spectacular landscape and abundant flora and fauna. Lively and scientifically accurate writing, vibrant color photos, and clear maps and line illustrations make these field guides essential for all outdoor enthusiasts, professional and amateur alike. To receive a printed catalog or sign up for emailed alerts about new books in this series, visit www.californianaturalhistory.com

CDFA Encycloweedia. Notes on Identification, Biology, and Management of Plants Defined as Noxious Weeds by California Law. Visit http://www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia_hp.htm

Calflora provides information on wild California plants for conservation, education, and appreciation. The Calflora Database is a non-profit organization dedicated to providing information about California plant biodiversity for use in Education, Research and Conservation. Visit <http://www.calflora.org>

Eyes & Ears is compiled by the CBC. Submissions for the Fall/Winter and Spring/Summer issues will be considered if sent to the CBC by January and July, respectively.

Upcoming Events

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**July 21-
July 22** ***Southern California Wetlands Recovery
Project BOG and PAC Meetings and
California Biodiversity Council Regional
Meeting***

Sponsor: SCWRP and CBC
Location: Long Beach, California
Contact: 916/445-5845 or 562/380-4233
x20
<http://ceres.ca.gov/biodiv/oceans.html>

Sept. 23 ***California Ocean Protection Council
Meeting***

Sponsor: California Resources Agency
Location: San Diego, California
Contact: COPCpublic@resources.ca.gov
<http://www.resources.ca.gov/ocean/copc/>

**Sept. 7-
Sept. 9** ***The Plastic Debris Rivers to Sea
Conference***

Sponsor: SWRCB & NOAA
Location: Redondo Beach, California
Contact: 415/861.3461
<http://conference.plasticdebris.org/>

**Oct. 6
Oct. 8** ***The California Invasive Plant Council
2005 Symposium***

Sponsor: California Invasive Plant Council
Location: Chico, California
Contact: 510/843-3902
<http://www.caleppc.org/>

Dec. 1 ***California Biodiversity Council one-day
Meeting***

Sponsor: California Biodiversity Council
Location: Sacramento, California
Contact: 916/445-5845
<http://ceres.ca.gov/biodiv/>

2 0 0 6

**April 5-
April 6** ***California Biodiversity Council Regional
Meeting***

Sponsor: California Biodiversity Council
Location: TBD
Contact: 916/445-5845
<http://ceres.ca.gov/biodiv/>

Got an Upcoming Event?

Do you have something planned for January through September 2006?

***Put the CBC on
your mailing list!***

*Send notice via snail mail to CBC, c/o CDF-FRAP,
P.O. Box 944246, Sacramento, CA 94244; Fax: 916.324.1180*



California's Bioregions

The California Biodiversity Council approaches biological conservation in California at a bioregional scale. These bioregions are primarily based upon the state's physiographic provinces.

STATE

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Secretary for Resources
Resources Agency
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Sacramento, CA 95814

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California Coastal Commission
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San Francisco, CA 94105

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Sacramento, CA 95816

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California Energy Commission
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Sacramento, CA 95814

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